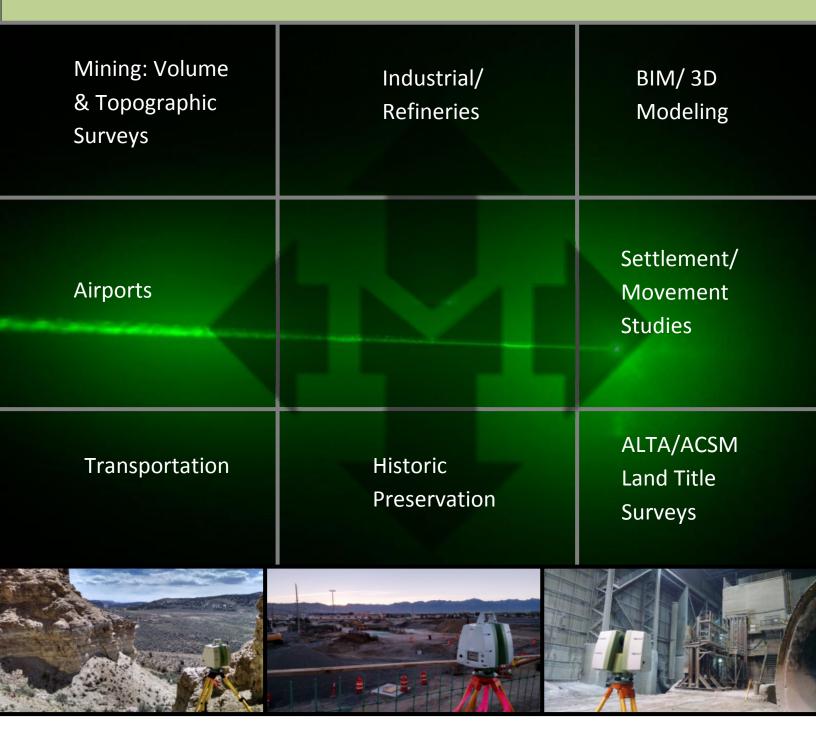
## **MCNEIL ENGINEERING** 3D Laser Scanning Technology





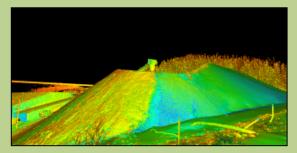
# Our Services 3D Laser Scanning Technology





# Our Services 3D Laser Scanning Technology

Mining: Volume & Topographic Surveys



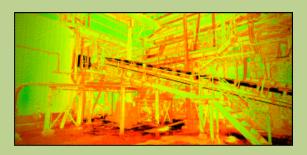
Transportation



Airports



Industrial/ Refineries







# Our Services 3D Laser Scanning Technology

BIM/ 3D Modeling



Historic Preservation

ALTA/ACSM Land Title

Surveys



### Settlement/Movement Studies









# How it Works 3D Laser Scanning Technology

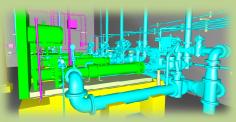
#### Scan Location



Scan Data

### Scan to Design

3D Model





Leica C10 Scanner

Our Leica C10 scanner collects up to 50,000 survey grade points per second.



### We Bring the Entire Site to Your Computer





### McNeil Engineering Notable Scan/Modeling Projects

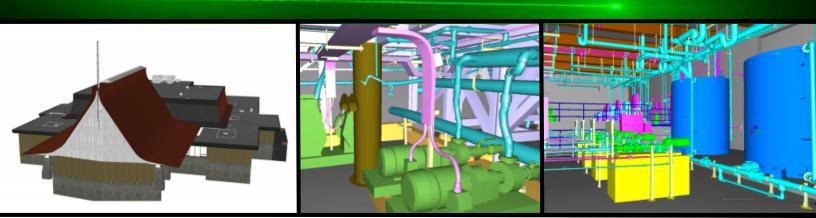
#### **International Projects**

| Project   | Location                                 |  |
|---|--|--|
| British Embassy   | Gurgaon, India                           |  |
| Saifee, Hussaini, Qutbi, Dhanwadi, and Handiwala Mosques, and Roza Building | Mumbai, India                            |  |
| 3 Mile Port of Brisbane Motorway  | Brisbane, Australia                      |  |
| Rio Tinto   | Port Dampier and Parker Point, Australia |  |

#### **United States Projects**

| Client                                | Project   | Location                       |
|---------------------------------------|---|--------------------------------|
| Alaska Airlines                       | LAX   | Los Angeles, CA                |
| American Equipment                    | Pearl Harbor Naval Base                                       | Pearl Harbor, Hawaii           |
| Banamex USA                           | Brownsville Mall  | Brownsville, TX                |
| Big-D Construction                    | Ogden Temple  | Ogden, UT                      |
| Big West Oil                          | Change Room   | Woods Cross, UT                |
| Bowens & Collins                      | South Valley Water Reclamation                                | West Jordan, UT                |
| Canyon Fuel Company                   | Skyline Mine  | Schofield, UT                  |
| Cargill Salt                          | Cargill Salt Facility   | Grantsville, UT                |
| Fashion Place and Newgate Mall        | General Growth  | Murray and Ogden, UT           |
| Great Salt Lake Mineral               | Great Salt Lake Mineral Facility                              | Ogden, UT                      |
| Hansel Phelps                         | Kaiser Permanente Hospital                                    | Irvine, CA                     |
| Harris Mechanical                     | Hill Air Force Base   | Layton, UT                     |
| Hubbard Engineering                   | LA Dodger's/ Chicago White Sox/<br>Camelback Ranch            | Phoenix, AZ                    |
| Hubbard Engineering                   | Westworld Horse Arena   | Phoenix, AZ                    |
| Hubbard Engineering                   | Psycho Hotel  | Phoenix, AZ                    |
| Hyatt Hotel                           | Hyatt Hotel   | Scottsdale, AZ                 |
| Infigen Energy                        | Infigen Energy  | Santa Rosa, NM                 |
| Intrepid Potash                       | Intrepid Potash Facility                                      | Wendover & Moab, UT            |
| Job Industrial                        | Holly Refinery  | Woods Cross, UT & Cheyenne, WY |
| Jviation                              | Wendover Airport  | Wendover, UT                   |
| LDS Church                            | Visitors Center   | Park City, UT                  |
| Los Angeles City                      | Martin Luther King Jr. Hospital                               | Los Angeles, CA                |
| Malcom Pernie                         | Flood Plain Study   | Birmingham, AL                 |
| McDonald's                            | McDonald's  | Colorado and Nebraska          |
| Morton Salt                           | Morton Salt Facility  | Grantsville, UT                |
| MWH Americas                          | Logan 3 <sup>rd</sup> Dam and Powerhouse                      | Logan, UT                      |
| PacifiCorp                            | Naughton Plant  | Kemmerer, WY                   |
| Riverton City                         | 13200 South and 2700 West                                     | Riverton, UT                   |
| Sandia National Laboratories          | Sandia National Laboratories                                  | Albuquerque, NM                |
| Tesoro                                | Tesoro Refinery   | Salt Lake City, UT             |
| UDOT                                  | Taggert Bridge  | Taggert, UT                    |
| United States Army Corps of Engineers | Soo Locks Canal   | Sault Ste Marie, Michigan      |
| URS                                   | Roosevelt and Lexington Substation-<br>New York Subway System | New York, NY                   |
| Wasatch Electric                      | Huntington Power Plant  | Huntington, UT                 |
| West Jordan City                      | 4000 West Street  | West Jordan, UT                |
| West Jordan City                      | 9000 South Tunnel   | West Jordan, UT                |
| Wilcox Engineering                    | 205th Street  | Torrance, CA                   |

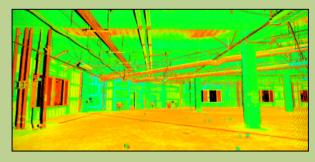
### BIM/3D Modeling





# Application BIM/3D Model

PointCloud Data

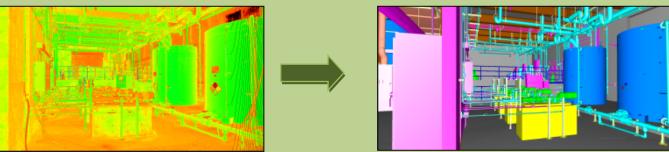


Hospital 3D Model



PointCloud Data

Industrial 3D Model



Michael D. Hoffman PLS Email: <u>mike@mcneileng.com</u> 801-255-7700 x. 138

Troy Taylor Email: <u>troy@mcneileng.com</u> 801-255-7700 x. 137



www.mcneilengineering.com

### We Bring the Entire Site to Your Computer

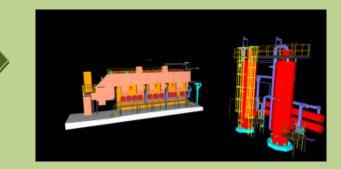


# Application BIM/3D Model

PointCloud Data

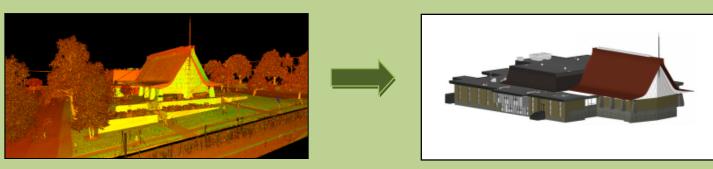
Refinery 3D Model





PointCloud Data

Church 3D Model



Michael D. Hoffman PLS Email: <u>mike@mcneileng.com</u> 801-255-7700 x. 138

Troy Taylor Email: <u>troy@mcneileng.com</u> 801-255-7700 x. 137



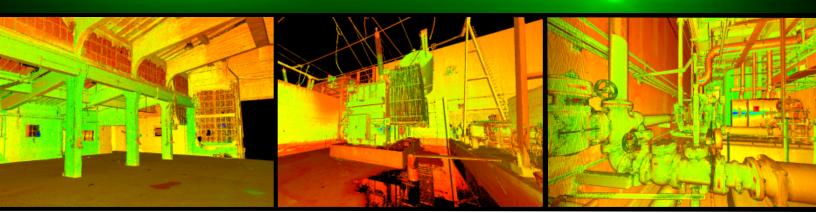
### We Bring the Entire Site to Your Computer

EIL ENGINEERIN

Economic and Sustainable Designs, Professionals You Know and Trust



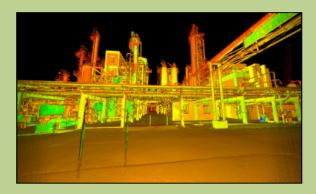
### Industrial/Refineries





## Application Industrial/Refinery

Tesoro Refinery Scan, North Salt Lake, UT



South Valley Water Reclamation Scan, West Jordan, UT



Mill Building Scan, Intrepid Potash Wendover, UT



Holly Refinery Scan, North Salt Lake, UT



Michael D. Hoffman PLS Email: <u>mike@mcneileng.com</u> 801-255-7700 x. 138

Troy Taylor Email: <u>troy@mcneileng.com</u> 801-255-7700 x. 137



### We Bring the Entire Site to Your Computer



Transportation





# Application Transportation

Taggart Bridge Scan, Morgan County, UT



13200 South Scan, Riverton, UT





4000 West Scan, West Jordan, UT





Michael D. Hoffman PLS Email: <u>mike@mcneileng.com</u> 801-255-7700 x. 138

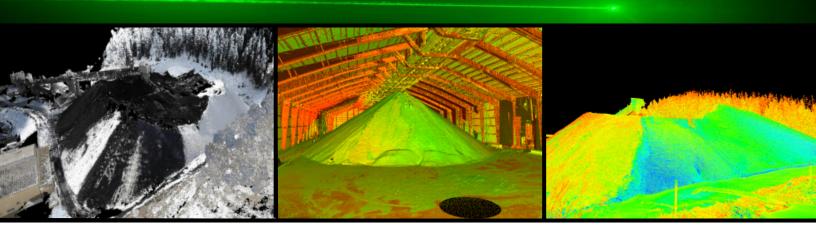
Troy Taylor Email: <u>troy@mcneileng.com</u> 801-255-7700 x. 137



We Bring the Entire Site to Your Computer



## Mining: Volume & Topographic

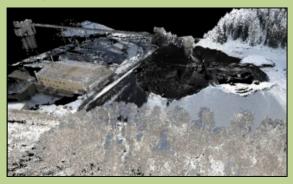




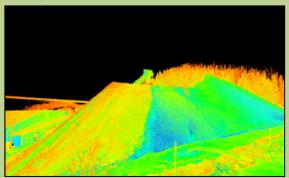
## Application Mining: Volume &

# Topographic Surveys

Volume Calculation Scan, Skyline Mine



Volume Calculation Scan, Skyline Mine



Volume Calculation Scan, Intrepid Potash



Michael D. Hoffman PLS Email: <u>mike@mcneileng.com</u> 801-255-7700 x. 138

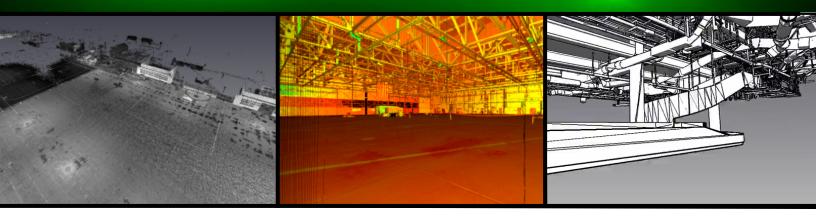
Troy Taylor Email: <u>troy@mcneileng.com</u> 801-255-7700 x. 137



We Bring the Entire Site to Your Computer



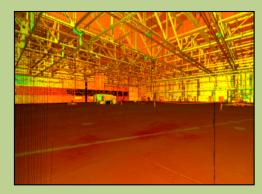
Airports







Hill Air Force Base Hanger Scan



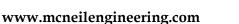
Windover Airport Runway Scan



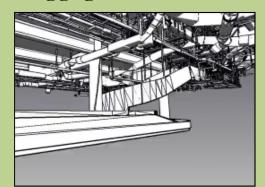
Michael D. Hoffman PLS Email: <u>mike@mcneileng.com</u> 801-255-7700 x. 138



Troy Taylor Email: <u>troy@mcneileng.com</u> 801-255-7700 x. 137



### Alaska Airlines, LAX Baggage Claim Scan



Salt Lake International Airport Expansion Scan



### We Bring the Entire Site to Your Computer



### Historical Preservation





## Application Historic Preservation

Garfield School Scan, Salt Lake City, UT



Barrister Place "Psycho Hotel" Scan, Phoenix, AZ



Santaquin Chieftain Museum Scan, Santaquin, UT



Masonic Temple Scan, Salt Lake City, UT



Michael D. Hoffman PLS Email: <u>mike@mcneileng.com</u> 801-255-7700 x. 138

Troy Taylor Email: <u>troy@mcneileng.com</u> 801-255-7700 x. 137



### We Bring the Entire Site to Your Computer



## ALTA/ACSM Land Title Surveys





## Application ALTA/ACSM Land Title Surveys

Classic Trends Scan, Salt Lake City, UT



Hillcrest Junior High Scan, Murray, UT

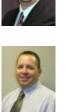


TOSH Scan Intermountain Healthcare Murray, UT



Michael D. Hoffman PLS Email: <u>mike@mcneileng.com</u> 801-255-7700 x. 138

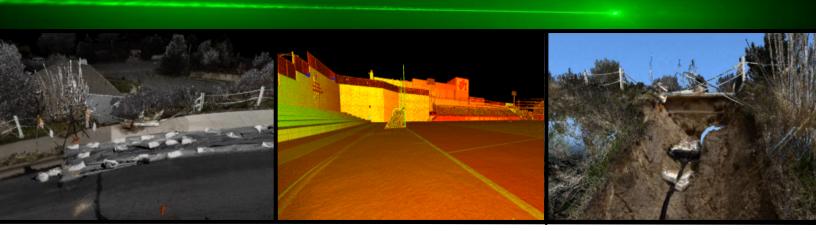
Troy Taylor Email: <u>troy@mcneileng.com</u> 801-255-7700 x. 137



We Bring the Entire Site to Your Computer



### Settlement/ Movement Studies





### Application Settlement/Movement Study

Football Field Scan, Judge Memorial HS Salt Lake City, UT



Kari Circle Scan, North Salt Lake, UT



Wind Farm Scan, New Mexico



Michael D. Hoffman PLS Email: <u>mike@mcneileng.com</u> 801-255-7700 x. 138



Troy Taylor Email: <u>troy@mcneileng.com</u> 801-255-7700 x. 137



www.mcneilengineering.com

### We Bring the Entire Site to Your Computer



## What **sets** McNeil Engineering **apart** from the competition...

- We want to be a part of a great team and we understand great teams rely on **trusting teammates**. We understand that relationships are all about trust and that trust is hard to get and easy to lose. We strive to earn and keep relationships that are built on **trust** and **confidence**.
- Our vision and goals extend beyond one project we are in the business of **building relationships**, not just projects. We recognize that the better we understand our clients and their objectives, the more effective and efficient we can be in our services. This often requires a longer-term relationship extending beyond one project.
- **Communication and Responsiveness**: The other day a client said, "one of the reasons I love working with McNeil is that I know they will call me back promptly." Everyone understands the frustration of not being able to get a simple response from someone in a reasonable amount of time. Lack of communication can create delays. We understand communication is critical to the success of a team, and our goal is to respond to all forms of communication (phone calls, emails, meetings, etc) as quickly as possible.
- We recognize the importance of getting the **approval entity** (the city, county or state) **involved** in the process early to weed out **potential issues** before they become a **crisis**. This is similar on the old phrase "you can pay it now or pay it later". In our experience, the sooner we can get feedback from the review authority, the better. While it may take a bit more time early in the project, it will almost always save time in the long term.
- We have a **proven ability** to bring **creative solutions** to the table for nearly any size project. We have been providing creative design solutions to our clients for more than 30 years. We successfully completed projects on everything from single-family plot plans to regional shopping malls.
- Our highly qualified staff is willing to look at **outside of the box solutions** - no cookie cutter solutions here. What works for one project may not work for the next. We spend a lot of time and effort evaluating alternatives for each project with the goal of providing informed choices for our clients.



McNeil Engineering

8610 South Sandy Parkway

Sandy, UT 84070

801-255-7700

888-303-7700

Fax: 801-255-8071

